

CRUISE RESULTS

UNOLS R/V *Hugh R. Sharp*
Cruise No. S1 08-01 (Parts I & II)
Sea Scallop Survey

Submitted to: NOAA, NEFSC

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National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
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CRUISE PERIOD AND AREA

The cruise period was 21 June-6 August 2008 and was divided into two parts. Part I was from 21 June-8 July and Part II was from 22 July-6 August. The area surveyed was from North Carolina to Georges Bank. Sampling depths ranged from 31 to 144 meters (17 to 79 fathoms). Approximate station locations are shown in Figures 1 and 2.

OBJECTIVES

The objectives of the survey were to: (1) determine the distribution and relative abundance of the sea scallop, *Placopecten magellanicus*; (2) re-occupy approximately eighty-five dredge hauls conducted by the NOAA FRV *Albatross IV* during the 2007 standard Sea Scallop Survey; (3) conduct paired tows with F/V *Nordic Pride*, F/V *Celtic* and F/V *Kathy Marie* to develop dredge calibrations between a standard dredge, a prototype dredge and a towed digital camera system; (4) collect additional biological samples for other programs including red tide sampling by the Food and Drug Administration.

METHODS

Operations and gear used during *H R Sharp* 08-01 Parts I & II conformed with the Cruise Instructions for the Sea Scallop Survey, dated 23 April 2008; Addendum 1 dated 17 June 2008; and Addendum 2 dated 14 July 2008.

Pre-selected random stations were sampled using a modified 2.44 meter (8') wide New Bedford type scallop dredge rigged with 5.1 cm (2 inch) diameter rings and lined with at 3.8 cm (1½ inch) polyethylene stretched mesh liner. Tow duration was 15 minutes; tow speed was 3.8 knots; and the dredge was fished using a 3.5:1 wire out to depth scope. A recording inclinometer was mounted on the dredge to collect bottom contact time data. Tow distance was recorded using differential GPS.

The entire catch was sorted at each standard station into biological and habitat components. Live whole and clapper shells of both sea and Iceland scallops were measured on Limnoterra boards to the nearest millimeter (mm). Selected fish species caught incidentally in the dredge were also measured to the nearest (mm). Weights and total numbers were recorded for all other fish species at each station. Cancer crabs, and starfish weights and total numbers were recorded at every third station. Habitat portions were estimated by volume and discarded.

Surface temperatures were measured using the hull-mounted temperature sensor and logged by the Scientific Computer System (SCS) at all stations. Temperature and conductivity profiles were made at approximately every third station using a conductivity, temperature, and depth instrument (CTD). A bottom salinity sample was obtained twice a day to calibrate the CTD. Water samples were also taken for fluorometer calibrations.

RESULTS

The survey sampled at 491 stations with 262 and 229 dredge hauls made on Parts I and II, respectively.

The dredge flipped 31 times (stations were re-towed in most cases). Bottom temperatures were collected at 148 stations using the CTD system. Bottom water samples for CTD calibration were taken at 41 stations.

A total of 5,376 requested samples were collected to support 11 internal and external investigations (Table 1).

DISPOSITION OF DATA

Catch data and hydrographic data will be analyzed at the NEFSC Laboratory in Woods Hole, Massachusetts. The various collections were forwarded to researchers listed in Table 1. Resulting data will be audited, edited, and archived in an Oracle database.

SCIENTIFIC PERSONNEL

National Marine Fisheries Service, NEFSC, Woods Hole, MA

Kevin McIntosh, Chief Scientist¹ (21 June-2 July)

Stacy Rowe, Chief Scientist²

Cristina Bascunan¹

William Duffy¹

Jonathan Duquette^{1,2}

Stephanie Floyd²

Deborah Hart²

Betty Holmes¹

Erin Kupcha¹

Tony Vieira^{1,2}

Contractors, ITS, Woods Hole, MA

Joshua Cutler¹
Geoff Shook^{1, 2}
Francine Stroman²

Volunteers

Nikolaus Anderson²
Ray Burditt²
Kevin Crandell²
Richard Kelly²
John Leeman²
Ann Lovely¹
Benjamin McGovern¹
Samir Patel²
Michael Persun¹
Robert Wagner¹

Arnold, MD
Annapolis, MD
Columbia, MD
Vineyard Haven, MA
Decatur, AR
Marion, MA
Bala Cynwyd, PA
Media, PA
USCGA, New London, CT
Mashpee, MA

¹ 21 June-8 July

² 22 July-6 August

For further information contact Russell Brown, National Marine Fisheries Service, Northeast Fisheries Science Center, Woods Hole, Massachusetts 02543-1097. Phone (508) 495-2380; FAX (508) 495-2380; Russell.Brown@noaa.gov. The Cruise Results and Resource Survey Report for this survey can be viewed at [NEFSC Ecosystem Surveys Branch webpage](#).

Table 1. Special samples obtained for various investigators on UNOLS R/V *Hugh R. Sharp* Sea Scallop Survey, during 21 June to 6 August 2008.

Investigator and Affiliation	Samples Saved	Approximate Number
David Dodge, USCG Academy, New London, CT	Various species	112 indiv.
Stacey Etheridge, FDA, Silver Spring, MD	Sea scallop	756 exam.
	Sea scallop, preserved	14 stations
	Iceland scallop	12 exam.
John Galbraith, NMFS, NEFSC, Woods Hole, MA	Various species	6 indiv.
Deborah Hart, NMFS, NEFSC, Woods Hole, MA	Scallop shells/meat weights	1051/1368 indiv.
	Sea scallop, diseased	6 indiv.
	<i>Asterias</i> spp.	1893 exam.
	<i>Astropecten</i> spp.	10 bags
	<i>Leptasterias</i> spp.	1 indiv.
	Brittle sea star	3 exam.
	Little skate	50 indiv.
	Yellowtail flounder	4 exam.
	Sean Lucey, NMFS, NEFSC, Woods Hole, MA	Sea scallop, examine
Joe Mello, NMFS, NEFSC, Woods Hole, MA	Various species	2 indiv.
Chato Osio, U. of New Hampshire, Durham, NH	Barndoor skate	17 preserved
Robert Reid, NMFS, NEFSC, Sandy Hook, NJ	Sea scallop	1 bag
Anne Richards, NMFS, NEFSC, Woods Hole, MA	Goosefish	3 indiv.
Kathy Sosebee, NMFS, NEFSC, Woods Hole, MA	Various skates	30 exam.
Richard Taylor, WHOI, Woods Hole, MA	Sea scallop	5 indiv.
	Cancer crab	1 indiv.
	Brittle sea star	1 indiv.

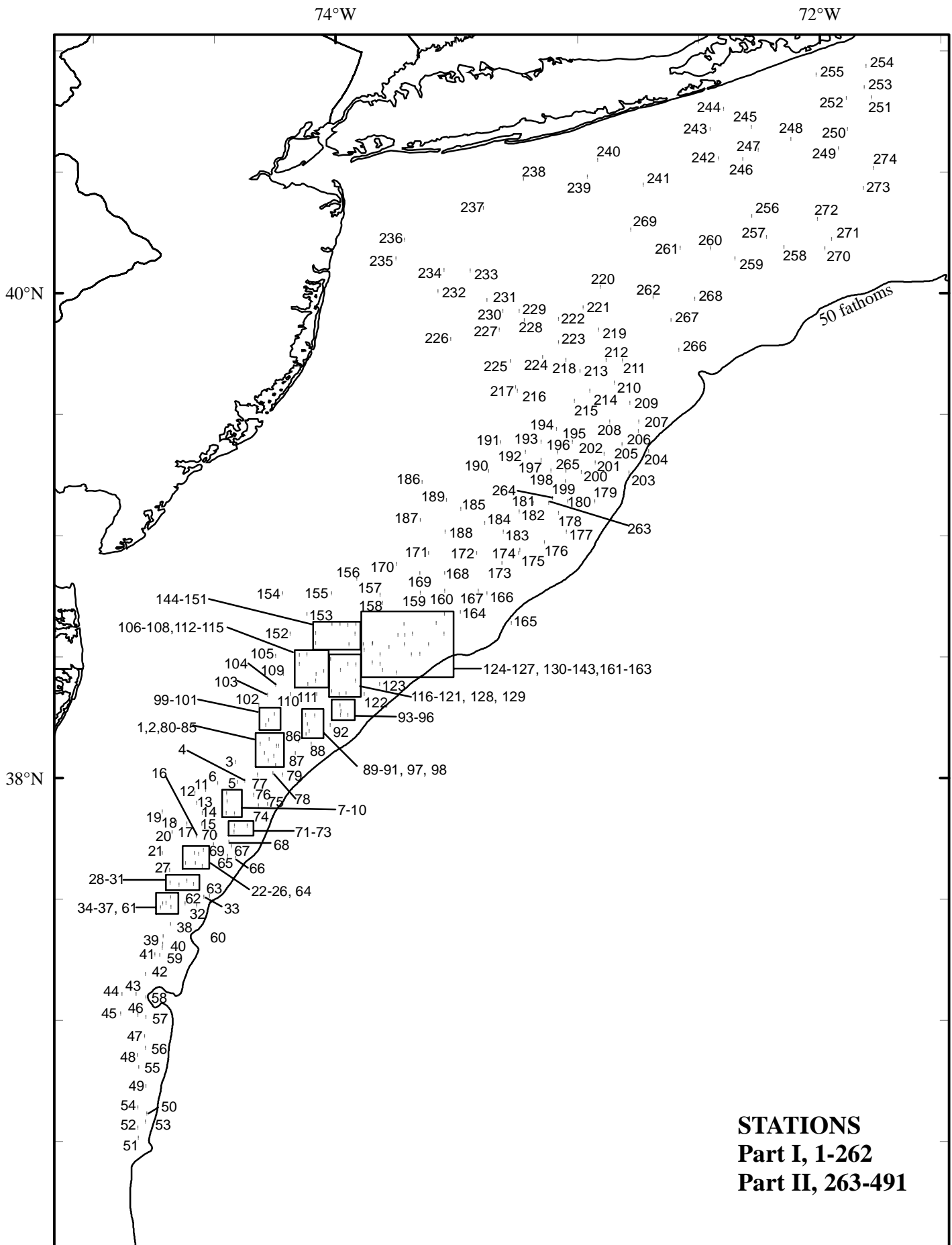


Figure 1. Dredge tows made from UNOLS R/V *Hugh R Sharp* (08 - 01), during NOAA Fisheries Service, Northeast Fisheries Science Center sea scallop survey, June 22 - August 6, 2008.

